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PATENT
BOX 159

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : DUVICK et al.
SERIAL NO : 09/658,835
FILED : September 8, 2000
TITLE : AMINO POLYOL AMINE OXIDASE POLYNUCLEOTIDES AND
RELATED POLYPEPTIDES AND METHODS OF USE

Grp./A.U. : 1638
Examiner : IBRAHIM, Medina Ahmed
Conf. No. : 2865
Docket No. : P05573US02

AMENDMENT AFTER FINAL REJECTION

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In response to the Communication from the Examiner dated July 2, 2003, an Office Action Final, it is respectfully requested that this Amendment After Final be entered and made of record pursuant to the provisions of 37 C.F.R. § 1.116. It is believed that the following amendments and remarks place the Application in condition for allowance or in a better form for Appeal. No new matter is presented, as such it is believed the Amendment is proper under 35 C.F.R. § 1.116. Applicants respectfully request reconsideration.

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Heidi S. Nebel

Amendments to the Claims

Claim 1 (Currently amended): An isolated polynucleotide comprising an APAO encoding polynucleotide linked to a fumonisin esterase encoding polynucleotide, wherein the APAO encoding polynucleotide is selected from the group consisting of:

a) a polynucleotide encoding a polypeptide having deaminase enzyme activity as set forth in SEQ ID NO: 51; and

b) a polynucleotide having at least 95% sequence identity to a polynucleotide set forth in SEQ ID NO: 50,

and further wherein said fumonisin esterase is ESPI

~~c) a polynucleotide that hybridizes under stringent conditions to a polynucleotide set forth in SEQ ID NO: 50, wherein said stringent conditions comprise a last wash in 0.1X SSC and 0.1% sodium dodecyl sulfate at 65°C for 30 minutes.~~

Claim 2 (Original): A recombinant expression cassette comprising a polynucleotide of claim 1 operably linked to a promoter.

Claim 3 (Original): The recombinant expression cassette of claim 2 wherein the polynucleotide is operably linked to a plant signal sequence.

Claim 4 (Original): A vector comprising the recombinant expression cassette of claim 2.

Claim 5 (Original): A host cell comprising the recombinant expression cassette of claim 2.

Claim 6 (Original): The host cell of claim 5 wherein the cell is a plant cell.

Claim 7 (Original): The host cell of claim 6 wherein the plant cell is selected from the group consisting of maize, sorghum, wheat, tomato, soybean, alfalfa, sunflower, canola, cotton, barley, millet, and rice.

Claim 8 (Previously presented): A plant comprising the polynucleotide of claim 1.

Claim 9 (Previously presented): A seed from the plant of claim 8, wherein the seed comprises the isolated polynucleotide.

Claim 10 (Cancelled)

Claim 11 (Cancelled)

Claim 12 (Currently amended): The polynucleotide of claim ~~44~~ 1 wherein the polynucleotide is set forth in SEQ ID NO:24.

Claims 13-33 (Cancelled)

Claim 34 (Currently amended): ~~The A host cell of claim 33 comprising an wherein the~~ APAO encoding polynucleotide linked to a fumonisin esterase encoding polynucleotide, wherein the APAO encoding ~~comprises a polynucleotide is~~ selected from the group consisting of:

a) a polynucleotide encoding a polypeptide having deaminase enzyme activity set forth in SEQ ID NO: 51; and

b) a polynucleotide having at least 95% sequence identity to a polynucleotide set forth in SEQ ID NO: 50:

and further wherein the fumonisin esterase is ESPI

e) ~~a polynucleotide that hybridizes under stringent conditions to a polynucleotide set forth in SEQ ID NO: 50, wherein said stringent conditions comprise a last wash in 0.1X SSC and 0.1% sodium dodecyl sulfate at 65°C for 30 minutes.~~

Claim 35 (Cancelled)

Claim 36 (Currently amended): The host cell of claim ~~34~~ 33 wherein the cell is a plant cell.

Claim 37 (Original): The host cell of claim 36 wherein the cell is selected from maize, sorghum, wheat, tomato, soybean, alfalfa, sunflower, canola, cotton, and rice.

Claim 38 (Original): The host cell of claim 37 wherein the plant cell is regenerated into a plant.

Claims 39-41 (Cancelled)